

head is broader within the two lines which extend up the front from the horns, and is without the concavity which distinguishes the other.

Briefly to sum up the most prominent points, *D. Wallichii* is distinguished from the other two by its greater breadth and its turgid prothorax, and *D. Bowringii* from *D. Adamsii* by the triangular impression on the shoulders, always filled in by the pubescence which has escaped the abrasion which is suffered by the more projecting parts.

V.—Notices of new or little-known Genera and Species of Coleoptera.

By FRANCIS P. PASCOE, F.L.S., &c.

[Continued from vol. i. p. 371.]

PART IV.

SILPHOMORPHA [Carabidæ].

Westwood, Trans. Linn. Soc. xviii. p. 415.

*Silphomorpha speciosa*.

*S.* late ovata, subtilissime punctata, viridi-purpureo-metallica, nitida, subtus nigro-chalybeata; antennis ferrugineis.

*Hab.* Queensland.

Broadly ovate, very minutely punctured, deep golden green, with brilliant dark purple or violet reflexions; body beneath and legs black, with a chalybeate gloss; femora greenish metallic; antennæ and palpi ferruginous; eyes pale; head finely corrugated and punctured, deep violet, bordered with green in front, the lip black; prothorax very transverse, bisinuate anteriorly, with very minute punctures, and divided by irregular lines into exceedingly fine reticulations; scutellum triangular, black; elytra lightly seriate-punctate, the interspaces also minutely punctured; body beneath finely corrugated, the penultimate abdominal segment deeply emarginate; tarsi dark ferruginous. Length 8 lines.

This magnificent species is very distinct from any other in the remarkable subfamily to which it belongs, but apparently a true *Silphomorpha*. The purple or dark-violet reflexion (it is difficult to fix which colour-name is most appropriate) is more decided at the base and centre of the elytra, and is also very marked at the sides of the prothorax. In my collection, and I believe unique. A coloured figure will be given in a supplemental plate.

## CEPHALODESMIUS [Scarabeidæ].

Westwood, Trans. Ent. Soc. 1 ser. iv. p. 117.

*Cephalodesmius laticollis.*

*C. niger*, opacus; clypeo antice bidentato, dentibus duobus mediis basi separatis; prothorace elytris latiore.

*Hab.* Queensland.

Dull black, opaque; head very transverse; the clypeus four-toothed, the two central teeth longest, linear, subparallel, and widely separated at the base; prothorax very broad, wider than the elytra, and presenting an almost foliaceous margin at the side anteriorly; elytra obsoletely striated, slightly convex, almost concave towards the shoulder; body beneath and legs dull black; palpi ferruginous. Length 7 lines.

Well distinguished from *Cephalodesmius armiger*, Westw., the only species of this genus hitherto described, by the slight convexity of its upper surface, the breadth of the prothorax, by the direction of the two central teeth of the clypeus, and their separation at the base. The head is also broader and shorter, the legs longer, and the abdomen more contracted.

## DIATELIUM [Scaphididæ].

*Caput* collo elongato; *oculis* magnis, integris, rotundatis. *Antennæ* graciles, clava quinque-articulata. *Palpi* subulati, acuti. *Scutellum* liberum. *Pedes* elongati, *tibiis* bicalcaratis. *Mesosternum* carinatum.

Notwithstanding the extraordinary form of this insect, owing to its exceedingly long neck, it is very closely allied to *Scaphidium*, differing from it principally in that respect and in its entire and prominent eyes. As in the Scaphididæ generally, the abdomen has six segments, and the prothorax and elytra have the same peculiar punctation. Mr. Wallace has taken it both in Sumatra and in Borneo.

*Diatelium Wallacei.* (Pl. II. fig. 2.)

*D. fulva*, nitida; capite, prothoracis basi et medio, elytrorum macula discoidea clavaque antennarum nigris.

*Hab.* Sumatra; Borneo (Sarawak).

Fulvous yellow, very smooth and shining; head and neck nearly as long as the rest of the body together, black, the latter finely corrugated transversely; eyes fulvous; antennæ pale testaceous, short, arising from a round fovea in front of each eye, the last five joints black, forming a loose club; prothorax rounded anteriorly, convex, the middle and base black; scutellum black; elytra rather depressed, a large black discoidal spot on each; body beneath fulvous; coxæ, base and extremity of the femora, the mesothorax, and the episterna of the metathorax, as well as its posterior border, black. Length 6 lines.

## CLIDICUS [Seydmænidæ].

Laporte, Ann. de Soc. Ent. de France, i. p. 397.

*Clidicus formicarius*. (Pl. II. fig. 3.)*C. setulosus*, rufo-piceus; prothorace subcordato; pedibus piceis.*Hab.* Borneo (Sarawak).

Rufous pitchy, covered with short, stiff, erect hairs; head almost obsoletely punctured, shortly triangular, bilobed behind, an elevated transverse interocular ridge beneath which and at each end arise the antennæ; eyes very small, round, lateral; antennæ claviform, the basal joint obconic, as long as the next four together, and more or less triangular, gradually increasing in size to the seventh, the last four shortly transverse; lip and epistome short, transverse; mandibles short, curved, glossy black; maxillary palpi very long, the last joint ovate, pointed, and nearly as long as the preceding, the labial short, the last joint subulate; prothorax obscurely punctured, subcordate, considerably rounded anteriorly, narrower than the head, to which it is attached by a short neck; scutellum very small, triangular; elytra ovate, convex, each with six shallow striæ, which are very coarsely punctured; anterior coxæ elongate, contiguous, the middle and posterior separated by a slight interval; femora subclavate; tibiæ fusiform, unarmed; tarsi subfiliform, all their joints, except the last, of equal length; abdominal segments six; winged (?). Length 3 lines.

To *Clidicus* belongs the genus *Erineus*, Walker. The species described by him (*E. monstrosus*) differs from the above in its subquadrate prothorax and other characters. *Clidicus grandis*, Lap., is a more slender form, with longer legs, antennæ, &c.

## NARCISA [Trogositidæ].

*Caput* insertum, fronte verticali. *Oculi* divisi, superiores remoti, verticales.

*Antennæ* breves, articulo primo incrassato, clava subunilaterali triarticulata. *Maxille* lobo interiore obsoleto. *Prothorax* transversus, lateribus foliaceis. *Elytra* marginibus subdilatata, serrulata. *Corpus* ovatum, subdepressum.

This genus will be at once distinguished from *Anacypta* by the remoteness of the upper eyes, and the serrulate and partially dilated border of the elytra; and from *Gymnochila* by the foliaceous sides of the prothorax, and by the less decided unilateral position of the club of the antennæ, as well as by habit.

*Narcisa decidua*. (Pl. III. fig. 5.)*N. obovata*, pallide ferruginea, squamis albidis tecta; antennis rufescentibus.*Hab.* Batchian.

Obovate, pale ferruginous, rather sparsely covered with greyish-white scales; head dark brown, deeply set in the prothorax; eyes black, rather small, vertical, remote; antennæ rufous, the club partially unilateral, with its first two joints very transverse; external maxillary lobe narrow, ciliated, the internal obsolete; maxillary palpi with the terminal joint elongate-ovate, of the labial shortly ovate; prothorax more than twice as broad as long, the sides dilated, their edges with rounded serratures; scutellum transverse, rounded behind; elytra narrower than the prothorax at the base, dilated at the shoulder, then gradually rounded with the margin less and less dilated to the apex, its edges serrated and fringed with setose scales (where the scales have fallen off, the elytra are seen to be crenate-striate, with traces of darker or brownish spots, which form a sort of band, one near the base, the other towards the apex); body beneath dark brown, the legs paler and covered with smaller scales. Length  $3\frac{1}{2}$  lines.

## LEPERINA [Trogositidæ].

Erichson in Germar, Zeitschr. für die Entom. v. p. 453.

*Leperina turbata.*

*L. late oblonga, aterrma, supra fusco-nigro squamosa, fasciculis nigris plus minus elongatis induta; elytris subparallelis, maculis duabus albis posticis.*

*Hab.* Australia (Sydney?).

Broadly oblong, deep black, rather closely covered with small black and greyish scales, mixed with more or less elongate, erect or semi-erect scaly hairs, generally collected together in fascicles; head and prothorax with coarse scattered punctures, from which the scales arise; these are principally directed forwards, and are mostly greyish, a few only being black; a fascicle of black hair-like scales over each eye, and a large one nearly adjoining on each side the prothorax, on the latter a slightly raised median line; scutellum triangular, fasciculate; elytra nearly parallel, with two strongly marked costæ, three long black fascicles (longitudinally disposed), among many smaller ones, on each, between the middle and apical fascicles a silvery-white patch; legs and body beneath black, coarsely punctured, and sparsely covered with greyish setose scales; the prosternum smooth and polished. Length 6 lines.

In its long scaly fascicles this species resembles *Leperina cirrosa* (*ante*, vol. i. p. 100), but is much larger and proportionally broader, and the white scales are chiefly confined to a single spot on each elytron.

## CRINE [Nitidulidæ].

*Caput* late triangulare, ante antennis sulcatum. *Antennæ* breves, duodecim-articulatæ; clava ovata, triarticulata. *Palpi* crassi, cylindrici.

*Tybia* trigonatae. *Tarsi* quatuor- vel quinque-articulati, articulis tribus primis dilatatis, brevissimis. *Corpus* depressum.

The curious little insect constituting this genus belongs to the subfamily *Rhizophaginae*, hitherto composed of *Rhizophagus* only, but to which I would also refer *Europs*, Woll., and *Nomophloeus*\* and *Hesperobænus*, Motsch.† The two latter, however, appear to me to be identical. There are several discrepancies among authors in their descriptions of *Rhizophagus*. In the first place, Erichson denies that there are two lobes to the maxilla, as Curtis had represented; but M. J. du Val says that in this he is most certainly in error. Again, M. Lacordaire allows only ten joints to the antennæ, the ninth and tenth forming the club. M. J. du Val gives eleven; but in the two species which he has figured in his great work ('Coléopt. d'Europe') twelve are represented, as is the case also in Mr. Curtis's plate. As M. J. du Val states, there are unquestionably two lobes to the maxilla; and as unquestionably, I should say, are the antennæ twelve-jointed, as MM. Curtis and Migneaux have represented,—the last forming a little knob on the eleventh; but the two, although minute, are perfectly distinct. Exception may be taken that these are not true articulations, especially the last; but in any case the ninth has nothing to do with the club. They are here described as 12-jointed, as I cannot understand on what principle the last is to be ignored any more than the one preceding it. The line of punctures, which form a sort of oval on the prothorax, recalls the impres-

\* Whilst these sheets were passing through the press, I have had the opportunity of examining for the first time Dr. Leconte's 'Classification of the Coleoptera of North America.' In this work *Hesperobænus* and *Nomophloeus* are placed in the new family "Monotomidæ," which is "at once" separated from all Nitidulidæ by the "form of the anterior coxæ" (rounded in the former, transverse in the latter). Under the microscope it appeared to me that in some a transverse form was more or less assumed when the leg was thrown backwards; this was the case with the large, apparently rounded coxæ of *Crine*; but in *Europs* they are decidedly transverse. It is only necessary to examine the more recent entomological works (particularly the 'Genera des Coléoptères d'Europe,' *passim*) to see the wide divergence of statements in reference to mere matters of fact, where they concern the minute structures. On this account I hesitate trusting implicitly to these delicate characters, so difficult in most cases to realize.

† I have been unable to procure Colonel Motschulsky's 'Études Entomologiques,' in which, I presume, these genera were proposed. I believe the work was never regularly in the market, and can only be procured in an indirect manner. It is a question how far this is a *publication*. I have seen portions of the work in the library of the Linnean Society, but have not met with any indications of the two genera in question. I have, however, received type-specimens through M. Schaufuss, of Dresden.

sions which are common to many Colydiidæ. There is some doubt as to the tarsi: the anterior has five joints, although the basal one is only visible from beneath, as shown in the right-hand figure (Pl. III. fig. 1); but the remainder *appear* to have only four. The head, from its great breadth, appears to be only very slightly exerted. I have five or six species of this subfamily in my collection, which I have not yet examined.

*Crine cephalotes.* (Pl. III. fig. 1.)

*C. ferruginea, nitida*; capite prothoraceque vage, elytris seriatim punctatis.

*Hab.* Ega (Amazons).

Short, depressed, ferruginous, shining, the sides nearly straight, but gradually becoming narrower from the eye to the last abdominal segment; head and prothorax with large, scattered, shallow punctures, the latter with a smooth central ovate space, slightly contracted anteriorly, extending from the base to the fore margin, and surrounded by a line of strong punctures; scutellum nearly triangular; elytra abruptly rounded at the apex, with about seven rows of oblong punctures on each; pygidium strongly punctured; legs and body beneath ferruginous; abdomen, except the basal segment, strongly punctured; eyes dark brown; head large, triangular, deflexed, with a groove extending from the insertion of the antennæ to the mandibles; epistome very small, concealing the lip; eyes lateral, prominent; antennæ exposed at the base, twelve-jointed, the first large, obconic, the second and third successively smaller, the fourth to the ninth inclusive subequal in length, but gradually becoming more and more transverse, the tenth largest of all, and with the gradually diminishing eleventh and twelfth forming a shortly ovate club; palpi short, stout; labium oblong, mentum transverse; prothorax transversely quadrate; elytra as broad as the prothorax at the base; legs short, coxæ subremote, interfemoral process truncate anteriorly; tibiæ trigonate, the border at the distal end spinous beneath; tarsi short, the anterior five-jointed, the last as long as the rest together; abdomen with five segments, the three intermediate very short and equal. Length 1 line.

PHORMESA [Colydiidæ].

*Caput* insertum, subquadratum, ante oculos dilatatum. *Antennæ* basi tectæ, clava biarticulata, sulcis antennariis brevibus. *Mentum* quadratum. *Marille* lobis angustatis. *Prothorax* transversus, antice sinuatus, marginibus dilatatis, crenatis. *Tibiæ* lineares, breviter calcaratæ. *Tarsi* articulis tribus primis brevibus.

It will be seen from these characters that this genus differs but in few particulars from *Bitoma*; the presence of antennary grooves and the dilated margin of the prothorax are, however, of too much im-

portance to allow of its being referred to that group. *Bitoma prolata* (ante, vol. i. p. 102) belongs to *Phormesa*\*.

*Phormesa lunaris.* (Pl. III. fig. 6.)

*P. fusca*; prothorace lateribus rotundatis, utrinque bicostato, costis vix elevatis, interiore postice duplicata, exteriori interrupta; elytris luteo bifasciatis.

*Hab.* New Guinea (Dorey).

Moderately broad, dark brown; head finely and thickly granulose, considerably dilated before the eyes, and hiding the basal joint of the antennæ; mentum quadrate; labium transverse, slightly emarginate; maxillary lobes narrow; prothorax rough, granulated, rather contracted at the base, the disk with two slightly elevated costæ on each side, the interior approximating anteriorly, and forming a short, closed canal towards the head, posteriorly also approximating, then doubling back, and forming a short loop at the base, the exterior costa interrupted in the middle; elytra ovate, wider than the prothorax at its junction, with five crenulated costæ on each, the intervals with a double row of large, deeply impressed punctures, a yellow semilunar band near the middle, and a narrower and straighter one below it; legs pale ferruginous; body beneath dark brown. Length  $1\frac{1}{2}$  line.

On comparison with *Phormesa prolata* it will be seen that, besides the markings on the elytra, the differences will be found chiefly in the prothorax, which in that species is not contracted, except close to the base, and is then a little before the base as broad as the elytra, that the costæ are much more strongly marked, and the outer one especially is entire in its whole length. *Phormesa prolata* is also larger, and proportionally not so broad.

*Phormesa inornata.*

*P. fusca*; prothorace lateribus medio subparallelis, basi rotundatis, utrinque bicostato, interiore postice duplicata, exteriori vix elevata; elytris postice obsolete luteo signatis.

*Hab.* New Guinea (Dorey).

A longer species than the last; the sides of the prothorax less regularly rounded, and broader in proportion to its length, the external costa straighter and nearly entire; the elytra altogether brown, except a very faint spot on each near the base.

\* The diagnosis for this will now read thus:—

*Phormesa prolata.*

*P. fusca*; prothorace utrinque bicostato, costis fortiter elevatis, interiore postice duplicata; elytris obsolete luteo-maculatis.

*Hab.* Batchian.

*Phormesa demissa.*

*P. angustior*, fusca; capite subreticulato; prothorace lateribus antice rotundatis, dein subparallelis, basi vix constricto, utrinque bicostato, costa interiore postice incurvata; elytris lateribus subparallelis.

*Hab.* Malabar.

Much narrower than the preceding, brown; head rugosely punctured, with a few irregular and slightly elevated lines, so disposed as to form a kind of network; prothorax broadly margined, the disk with two elevated lines on each side, the interior approximating anteriorly and forming a short canal, strongly incurved at the base, the exterior costa entire; elytra rather broader posteriorly, each with five costæ, the intervals broad and marked with a double row of coarse obscurely defined punctures; body beneath chestnut-brown; legs and antennæ yellowish testaceous. Length  $1\frac{1}{2}$  line.

Narrower than the other species of this genus, and easily distinguished from them by the form of the costæ of the prothorax and the reticulated head.

## ILLESTUS [Colydiidæ].

*Caput* quadratum, ante oculos dilatatum. *Oculi* rotundati, prominentes. *Antennæ* articulis duobus primis incrassatis, clava triarticulata. *Palpi labiales* articulo ultimo ovato, obtuso. *Prothorax* subquadratus, irregulariter sulcatus, lateribus marginatis, serrulatis. *Elytra* costata. *Pedes* graciles; *tibiis* anguste trigonatis, calcaratis; *tarsis* brevibus.

Near *Lasconotus* (subfamily *Synchitinae*), a genus very briefly characterized by Erichson. The eyes, however, are said to be entirely covered by the dilated borders of the head—an unusual structure in this family. Here they are more than usually prominent. In the female of the species described below, the prothorax is more decidedly transverse than in the male.

Dr. Leconte, in the 'Journal of the Academy of Natural Sciences of Philadelphia,' 1859, p. 282, has shortly described a Colyidian which he refers to this genus; he observes that it is "at once recognized by its concave head and three-jointed club of the antennæ," but nothing is said in reference to the unusual position of the eyes. It is from Punta de los Reyes in California.

*Illestus terrenus.* (Pl. III. fig. 4.)

*I. fuscus* vel rufo-fuscus, opacus; oculis nigris.

*Hab.* Mexico.

Dark brown or reddish brown, opaque; head partially exerted, quadrate, finely granulated; eyes round, prominent, black; antennæ with the basal joint thickened, partially covered at the base, the second also



thickened but shorter, the third as long as the first, the remainder to the eighth shorter and more or less transverse, the three last forming an ovate, compact club; maxillary lobes narrow, fringed; mentum subquadrate, rounded in front; labium transverse, narrower behind; terminal joint of the maxillary palpi ovate-triangular, of the labial ovate, obtuse; prothorax somewhat quadrate, but with the sides contracted in the middle, produced at the anterior and slightly emarginate at the posterior angle, the margin rather dilated, especially anteriorly, and serrulate, the disk finely granulated; an elevated line on each side, which are nearly parallel in front, then slightly diverging, after which they approach to form a V-shaped mark, without however becoming connected, each then encloses a lozenge-shaped cavity and terminates at a short distance from the base; outside the line the prothorax is rather concave, with a slight ridge posteriorly; elytra with five strongly marked costæ, the intervals broad, with a double row of coarse punctures; body beneath dark chestnut-brown, reticulate-rugose; legs rather slender; tibiæ gradually thicker towards the extremity and slightly spurred; tarsi short, the first three joints nearly equal. Length 2-3 lines.

NEMATIDIUM [Colydiidæ].

Erichson, Naturg. der Ins. Deutschl. iii. p. 275.

*Nematidium mustela*. (Pl. III. fig. 10.)

*N. ferrugineum*; capite antice subdepresso; elytris striato-punctatis.

*Hab.* Rio; Para.

Linear, elongate, ferruginous; head finely punctured, moderately convex, somewhat flattened in front, the eyes rather large, black; prothorax half as long as the elytra, finely punctured, the sides slightly incurved; scutellum small, rounded; elytra striate-punctate, the intervals also punctured mostly in an irregular row; body beneath finely punctured; legs luteous testaceous. Length  $2\frac{1}{2}$ - $3\frac{1}{2}$  lines.

I have no hesitation in considering the insect just described a *Nematidium*, a genus founded on the *Colydium cylindricum*, Fab., and which, but for the expression "*elytris levissimis*," might have been identical, so far as his short description goes. Whether the *Nematidium costipenne*, J. du Val, really belongs to the genus is, I think, doubtful. I have another *Nematidium* among Mr. Bates's Amazons Colydiidæ\*, which differs from the above principally in its more slender form, shorter and more convex head, and elytra more than twice as long as the prothorax. Like *Colydium*, the first abdominal segment is *nearly* as large as the succeeding one. My description is drawn up from the largest of the two specimens now before me, which is from Rio, and belongs to Mr. Fry.

\* The Colydiidæ of this collection will form the subject of a distinct paper.

## BOTHRIDERES [Colydiidæ].

Erichson, Naturg. der Ins. Deutschl. iii. p. 288.

*Bothrideres? rhysodoides.* (Pl. III. fig. 11.)

*B.?* elongatus, castaneus, nitidus; prothorace lateribus postice angulatis, disco profunde longitudinaliter excavato, basi canaliculato; elytris ovato-oblongis, singulo quinquecostato, costa secunda abbreviata.

*Hab.* New Guinea (Dorey).

Narrowly elongate, chestnut-brown, shining; head shortly ovate, very convex in front, minutely punctured; eyes large, round, rather prominent; antennæ scarcely longer than the head, the club a little longer than broad, the last joint nearly as large as the preceding one; prothorax rather elongate, the anterior angles produced, the sides rounded, but considerably contracted posteriorly, the disk with a deep ovoid longitudinal impression extending its whole length except a little in front, but which is narrower posteriorly, (there is a very faint trace of a raised central line or space); scutellum punctiform; elytra narrowly ovate, the shoulders a little produced, the base wider than the prothorax at its junction, each with five costæ, the first sutural, moderately raised, the second extending to only about a third the length of the elytron, the remainder very strongly elevated, punctation nearly obsolete; body beneath smooth, shining, impunctate; legs moderately long, tibiæ of the anterior and intermediate pairs slightly serrated externally; tarsi about half the length of the tibiæ. Length 3 lines.

Resembles a *Rhysodes* in habit. As the specimen now before me is unique, I must, without an examination of its trophi, satisfy myself with referring it to *Bothrideres*.

*Bothrideres? nocturnus.* (Pl. III. fig. 12.)

*B.?* elongato-ovatus, robustus, castaneus, nitidus; prothorace disco linea parallelogrammum includente impressa; elytris profunde striato-punctatis; antennarum articulo ultimo præcedente majore.

*Hab.* New Guinea (Dorey).

Elongate-ovate, reddish-chestnut, shining; head considerably exerted, hollowed out between the eyes, thinly punctured, the lip nearly hidden by the clypeus; antennæ not longer than the head, the terminal joint larger in every way than the preceding one; eyes large, very prominent; prothorax scarcely longer than wide, the anterior angles prominent, but not projecting, the sides rounded, much contracted and sinuate at the base, with a deep fovea on each side near the angle, the disk covered with very small distant punctures, and having in its centre a deeply impressed line including a parallelogrammical space; scutellum nearly punctiform; elytra rounded at the sides, the base slightly contracted, but much broader than the prothorax at its junction, striato-punctate, the interstices scarcely raised, except the third

one at the base, the first stria much deeper than the others; body beneath chestnut, finely and remotely, the mesosternum and last four abdominal segments coarsely punctured; legs stout; tibiæ short, all strongly spurred, the anterior and intermediate pairs trigonate, dilated and toothed externally; tarsi nearly as long as their corresponding tibiæ. Length 3 lines.

This species is also referred doubtfully to *Bothrideres*, principally on account of the large terminal joint of the club, and the short and unusually trigonate tibiæ; these characters are, however, chiefly ones of degree, and not of plan. An examination of the trophi (which, as the specimen is unique, I have not attempted) might probably afford stronger grounds for its generic separation.

#### MACHLOTES [Colydiidæ].

*Caput* receptum, triangulare, sulcis antennariis. *Antennæ* breves, articulo primo incrassato, libero, clava biarticulata. *Prothorax* sulcatus, postice transversim fissus. *Elytra* ovata, costata. *Pedes* robusti; *protibiis* subtrigonatis, anterioribus spina terminali; *tarsis* brevibus.

A very distinct genus, although, from its widely separated coxæ and large basal segment of the abdomen, allied to *Bothrideres*. The sculpture of the prothorax is, however, peculiar, owing to the presence of a deep transverse cleft posteriorly, dividing, and even dipping below the longitudinal grooves by which the disk is indented. I regret that, having only a single specimen, for which I am indebted to Mr. Bowering, I cannot throw any light on the structure of its mouth, which might perhaps have afforded some clue to its affinities; but if it has no connexion with *Dastarcus*—and even in that case it cannot be a near one—it must remain for the time an isolated genus among the *Bothriderinæ* as they have been defined by Erichson.

#### *Machlotes porcatus*. (Pl. III. fig. 13.)

*M. fuscus*, opacus; prothorace utrinque tricostato; elytris profunde sulcato-punctatis, interstitiis elevatis.

*Hab.* Penang.

Dark brown, opaque, the antennæ and legs subrufous; head inserted to the eyes in the prothorax, small, and coarsely punctured; antennæ not longer than the breadth of the head, uncovered at their insertion, the basal joint very thick, the remainder more or less transverse, the tenth and eleventh forming a short circular club, of which the last joint is much the smallest; antennary grooves well marked; eyes round; prothorax about half as long again as broad, narrowed behind, truncate and a little gibbous in front, slightly rounded at the sides, the anterior angles prominent,—the disk with three very strong costæ on each side,

which are interrupted posteriorly by a deep irregular cleft completely dividing the four central costæ, but less perfectly each of the lateral ones, the fissure moreover in their case extending forward to near the middle of the side, where it forms a deep notch; scutellum punctiform; elytra elongate-ovate, deeply and broadly sulcated, the sulcations pitted with large squarish punctures, the interstices strongly raised and minutely crenate; prosternum coarsely punctured, with a pale curved seta arising from each puncture; meso- and metasternum and abdomen with very large scattered punctures; anterior coxæ widely apart; legs rather robust; the protibiæ with two distinct spines; the tarsi short, with the claw-joint shorter than the three preceding ones. Length  $1\frac{1}{2}$  line.

On Plate III. fig. 7, I have represented the trophi of a species of *Dastarcus*, Walker. They are from a specimen given me by Mr. Bowring, who took several individuals at Penang. They differ from *Dastarcus confinis*, Pasc., only in their smaller size, and may safely be referred to that species. The only points I would call attention to, at present, are the *central* insertion of the maxillary palpus (owing, apparently, to a dilatation of the external lobe and its stipes) and the large hook-shaped apex of the internal lobe, not very plainly distinguishable in the figure, owing to the fringe of hairs which borders it, but perfectly distinct in the original.

#### PETALOPHORA [Colydiidæ].

Westwood, Cabin. of Orient. Entom. p. 85.

#### *Petalophora brevimana*. (Pl. II. fig. 9.)

*P. nigra*, subnitida; prothorace haud canaliculato; elytris singulis sex-costatis; tibiis anticis breviusculis.

*Hab.* Borneo (Sarawak).

Black, slightly nitid, with the antennæ and palpi reddish pitchy; head rather coarsely punctured, slightly produced below the eyes, with a strongly elevated mesial ridge; epistome not apparent; labrum transverse, subemarginate (not semicircular), fringed with golden-yellow hairs; antennæ fully exposed at their insertion, the club compressed and covered with short hairs; prothorax turgid, subquadrangular, gradually narrower towards the base, the sides straight, the front irregular, very obtuse, with a small vertical tooth on each anterior angle; the disk coarsely punctured, not canaliculate, but furnished with a central line, on each side of which at the base are two short diverging ridges; scutellum small, triangular; elytra parallel, gradually rounded at the apex, broader than the prothorax at its base, each with five strongly marked costæ (including the sutural) extending its whole length, and another less marked and shorter at the side, the intervals coarsely punctured; legs robust, the anterior tibiæ very broad and

short; posterior coxæ remote, with the first abdominal segment largest. Length 5 lines.

The type of this very rare genus, *Petalophora costata*, is from Java, and differs from the one described above in its canaliculate prothorax, clytra with three costæ only on each, but above all by its having a triarticulate club. Under ordinary circumstances, or if the latter character had been accompanied by any difference in habit, the two could not have been treated as congeneric; as it is, there is such a decided affinity between them, that their separation, except as species, would not be justifiable. *Petalophora*, from the greater size of the basal segment of the abdomen and the widely separated posterior coxæ, must be placed with the *Bothriderinæ* near *Sosylus*, and not with the *Colydiinæ* as has been done in the 'Genera des Coléoptères,' the learned author not having seen it, and Professor Westwood having omitted to give the only two characters by which its position could be ascertained.

#### METOPIESTES [Colydiidæ].

*Caput* receptum, subverticale. *Antennæ* breves, liberæ, clava biarticulata, compressa, rotundata, sulco antennario laterali. *Prothorax* subovatus, lævis. *Elytra* subparallela, carinata. *Tibiæ* breves, subtrigonatæ, calcaratæ. *Tarsi* elongati, articulo primo majore. *Corpus* cylindricum. (Coxæ posticæ distantes. Abd. segmento primo majore.)

The specimen from which this diagnosis is drawn being unique, I have not been able to examine the parts of the mouth; the genus, however, affords very distinctive peculiarities in its external characters, approximating most nearly to *Petalophora*, but differing in the form of the prothorax, antennæ, &c.

#### *Metopiestes hirtifrons*. (Pl. III. fig. 2.)

*M. fusco-castaneus*, nitidus; fronte fulvo-tomentosa; antennis rufescentibus.

*Hab.* New Guinea (Dorey).

Subcylindrical, dark chestnut-brown, shining; head deeply inserted in the prothorax, subvertical, the front densely covered with short fulvous hairs; antennæ 11-jointed, free at their insertion, the basal joint ovate, incrassate, the second longer than the following, pyriform, inserted at the top and side of the first, the rest transverse, the two last forming a round compressed club; antennal groove short, distinct, lateral; eye rather large, ovate; lip transverse; prothorax somewhat ovate, smooth, very convex, rounded in front and at the sides, slightly contracted behind, bisinuate at the base, covered with small, oblong, rather distant punctures, a short semicircular elevated line close to

the scutellum; scutellum small, ovate; elytra parallel, rather wider than the base of the prothorax, to which they are closely approximate, each with five very marked elevated lines, the wide excavated grooves between these impunctate, but with a faint trace of another line; body beneath dark chestnut; legs reddish chestnut; femora very robust; tibiæ short, subtrigonal, spurred, the anterior very strongly curved; tarsi elongate, the basal larger than the two following, especially the intermediate and posterior. Length  $3\frac{1}{2}$  lines.

PENTHELISPA [Colydiidæ].

Pascoe, Journ. of Entom. i. p. 111.

*Penthelispa Truquii*.

*P. fusco-castanea*, subnitida; prothorace convexo, fortiter punctato, lateribus antice rotundatis, medio paullo constrictis.

*Hab.* Mexico.

Chestnut-brown, the elytra sometimes with a more reddish tint than the rest, subnitid; head coarsely punctured; antennæ rather stout, the last joint of the club somewhat narrower than the preceding one; prothorax rather longer than broad, the anterior angles produced, the sides rounded anteriorly, but a little constricted in the middle, then again slightly rounded and contracting to the base, the disk convex, without any central depression, and very coarsely punctured; scutellum transversely rounded; elytra broadest nearly at the base, and very slightly rounded at the sides for two-thirds its length, the anterior angle not produced, strongly striato-punctate, the punctures shortly linear; body beneath dark chestnut-brown, shining, very coarsely punctured; legs dark brown. Length 2 lines.

There is a great similarity between the various species of *Penthelispa*\*, but the prothorax appears to offer good characters by which they may be distinguished. The one described above has that part regularly convex, and free from any impression or any elevated line, and this separates it from the remainder of the few species yet published. I owe my specimens to my kind friend Mr. Fry, who received it together with a vast number of Coleoptera collected in Mexico by the late lamented Signore Truqui, the Italian Minister in that country, after whom I have named it.

IPSAPHES [Cucujidæ].

*Caput* obcordatum, angulis posticis hand productis, collo brevissimo.

*Antennæ* moniliformes, articulo primo brevi, tertio paullo longiore.

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\* This name was published in October 1860. Dr. Leconte, in his 'Classification of the Coleoptera of North America,' published at Washington "May 1861—March 1862," proposed the term "*Endectus*" for the North American species.

*Mentum* transversum, subintegrum. *Palpi* articulo ultimo ovato. *Prothorax* subquadratus, lateribus denticulatis. *Tarsi* subdilatati, articulo primo majore. *Corpus* sublatum, planatum.

Allied to *Cucujus* and *Platissus*. The first it strongly resembles in habit, but differs in the normal condition of the tarsi, the ovate terminal joint of the palpi, the head not prolonged behind the eyes, the mentum nearly entire anteriorly, and the broad, rounded lobes of its deeply divided labium. From *Platissus* it differs in its robust habit, thicker antennæ, the third joint of which scarcely exceeds the first in length, the narrower tarsi, not dilated at the sides, and the denticulate margins of the prothorax.

*Ipsaphes macrosus*. (Pl. III. fig. 9.)

*I. piceo-niger*, subnitidus, confertim punctatus; elytris singulis in medio obsolete bicostatis.

*Hab.* New South Wales.

Pitchy black, subnitid, especially the head and prothorax, finely and very closely punctured; head broadly obcordate, a deep transverse groove behind the eyes, the clypeus descending between the mandibles and hiding the lip; antennæ rather longer than the breadth of the prothorax, moniliform, the basal joint short, incrassated, the second short, the third scarcely longer than the first, the remainder shorter and subequal, the last ovate, pointed; eyes moderate, rounded; maxillary palpi with the terminal joint oblong-ovate, of the labial shortly ovate; maxillary lobes shortly ciliated at the extremity; mentum transverse, not produced anteriorly (the large transverse piece beneath this in the figure is the jugular plate); labium bilobed, the lobes broad, rounded; prothorax subquadrate, broader than long, rounded at the side, with four or five minute, distant teeth, the disk near the anterior angles slightly hollowed out; scutellum transverse, rounded behind; elytra plane, strongly bent down at the sides, each having on its disk two nearly obsolete elevated lines in addition to the more strongly elevated line of the suture; body beneath and legs reddish pitchy, closely punctured. Length 7 lines.

SYNGEMIS [Cucujidæ].

*Caput* oblongo-subquadratum. *Oculi* prominuli, prothorace distantes.

*Antennæ* breves, subclavatæ, articulo basali ovato incrassato. *Maxillæ* lobo interiore uncinato. *Tarsi* articulis tribus primis dilatatis, penultimo minuto. *Corpus* elongatum, parallelum, planatum.

A remarkably elongate and narrow form belonging to the subfamily *Sylvaninæ* as at present constituted, strongly illustrating the impropriety of separating *Sylvanus* from the Cucujidæ, as has been done by M. Jacquelin du Val, and of the danger of coming to con-

clusions in regard to the limits or characters of natural groups from the examination of the species of a particular region only. M. du Val excludes *Sylvanus* and the cognate genus *Nausibius* from Cucujidæ because their tarsi have not the short basal joint which the remainder of the European members of this family possess; and to this character he attaches an importance of the highest order, so that for him none others are Cucujidæ; but if we look to the well-known genus *Palæstes* (and still more to *Ipsaphes* just described), to *Platysus*, or to *Scalidia* and *Ancistria*, where the basal joint far exceeds in size and length those which follow, we shall see at once the utter futility of this character. I think, too, it shows how cautious it is necessary to be before we take what may prove to be a mere technical character for one of real natural importance. The division of the Cucujidæ according to the difference of number of the tarsal joints in the two sexes is also objectionable. *Pristoscelis*\*, which can scarcely be distinguished otherwise from *Pædiacus*, is pentamerous in both, and would therefore be placed by M. du Val with *Monotominae* †. With regard to *Synœmis*, we must, I think, for the present consider it an isolated genus. The number of these insects, which conceal themselves under bark and in the axillæ of leaves, is probably enormous. They are generally minute, and are not often sought for, and we must therefore expect to find a form turning up now and then whose affinities are uncertain. The posterior tibiæ and tarsi of *Pristoscelis* (accurately described by Mr. Wollaston, but as to the tarsus most inaccurately represented in the figure) are to a certain extent repeated in *Synœmis*; it has also the hooked inner maxillary lobe of that genus. I owe this most interesting form to Mr. Bowring, who took it in considerable abundance at Penang, in the axillæ of the leaves of a species of *Pandanus*.

*Synœmis pandani.* (Pl. III. fig. 8.)

*S.* fusco-testaceus, nitidus; prothorace vage punctato; elytris punctato-striatis.

*Hab.* Penang.

Elongate, very narrow and depressed, chestnut-brown, subnitid; head nearly plane, oblongo-subquadrate, a little broader behind the eyes, sparingly punctured; antennæ remote from the eyes, short, the basal joint thickened, as long as the next two together, the remainder

\* This name has been preoccupied by Dr. Leconte for a genus of *Dasytinae*.

† *Monotoma*, according to M. du Val, has 5-jointed tarsi, and he therefore places it with the Cucujidæ.



subtriangular, gradually enlarging to the ninth, which, with the tenth and eleventh, are of equal thickness, the latter a little pointed at the apex; eyes prominent; mentum transverse, narrowed in front, its anterior angles produced; labium slightly emarginate; maxillary lobes narrow, nearly equal in size, fringed with long hairs, the inner lobe with a strong hook at its external angle; palpi rather short, the terminal joint of the maxillary subcylindric, of the labial ovate; mandibles bifid at the apex, with a slender tooth internally; prothorax twice as long as the head, sparingly punctured, a small process at the anterior angle, posteriorly a little contracted, and at the base a curved impressed line; scutellum broadly triangular, the sides rounded; elytra about twice as long as the prothorax, punctate-striate, slightly concave between the suture and the external border, where they bend down almost at a right angle; coxæ not approximate; femora long, robust; tibiæ short, slightly curved, subtrigonal, the posterior near the extremity finely toothed at its inner edge; tarsi very short, the three basal joints dilated, the fourth minute, the claw-joint small, not longer than either of the three basal; body beneath dark brown, finely punctured. Length 3 lines.

The insect is much narrower than I have represented in the figure.

#### ACHTHOSUS [Tenebrionidæ].

*Caput* exsertum, clypeo producto. *Antennæ* subelavatae, articulis 5-7 ultimis perfoliatis, transversis. *Maxillæ* lobo interiore hamato. *Tibiæ anticae* trigonatae, extrorsum dentatae. *Corpus* subcylindricum.

This genus differs in a few points only from *Antimachus*, some species of which it closely resembles, except that it is more cylindrical, but from which it will be at once distinguished by the strongly serrated external margin of the fore-tibiæ. There are also remarkable differences in the mentum and labium of the species described below, and in the same parts of a species of *Antimachus* (probably *A. furcifer*, Gistel) which I examined for the purpose of comparison. But two other species, which I refer also to *Achthosus*, appear to have the more or less subcordate mentum of *Antimachus*, and therefore I have not referred to this organ in the characters of the genus. So far as my limited experience goes, it appears to me that the parts of the mouth are subject to the same variations as other organs, and, except certain differences of plan, which, however, are rather characteristic of higher groups than genera, the variation in form or outline of these organs is generally only one of degree. I believe that they are supposed to be more constant in their characters because they are seldom examined, and that one species is, as a matter of course, taken as the type of the rest. For this reason

I have generally avoided entering into details of these organs in the generic characters, reserving them for the species which alone has been examined. If I have correctly recognized the sexes, there appears to be little difference between them, at least in the species described below. This Tenebrionid is not rare in collections: Professor Westwood informs me that it stands in the Oxford Museum as *Dendroblaps Westwoodii* (Macleay). This name has not been published, I believe; and as there is a *Dendroblax* among the Lucanidæ, I have retained the generic name under which it has always stood in my cabinet.

*Achthosus Westwoodii*. (Pl. II. fig. 7.)

*A. niger, nitidus*; clypeo recurvato; prothorace antice excavato, margine supra trisinuato.

*Hab.* Australia.

Subcylindrical, deep black, shining; head a little dilated anteriorly, narrowed behind the eyes, where it forms a thick neck, the front slightly concave and somewhat finely punctured, the clypeus produced and slightly recurved; epistome very distinct, subquadrate, the lip obsolete; antennæ with the five or six last joints perfoliate, transverse, and considerably broader than the others; mentum stout and irregular, but with six nearly equal sides; labrum somewhat cordate, its palpi inserted in a cavity which is hollowed out on each side at its base; last joint of the maxillary palpi shortly triangular, of the labial obliquely ovate; prothorax slightly broader than long, strongly excavated anteriorly, and this part only thickly punctured, the border of the excavation posteriorly strongly marked and having a trisinate outline; scutellum cordate-triangular; elytra parallel, coarsely punctate-striate, the intervals broad and nearly impunctate; body beneath black, shining; antennæ and legs chestnut; anterior and intermediate tibiæ strongly serrated externally, the posterior only very slightly so, all terminated by two or three stout spines; tarsi narrow, the claw-joint as long as the rest together. Length 10 lines.

STRONGYLUM [Tenebrionidæ].

Kirby, Trans. Linn. Soc. xii. p. 417.

*Strongylium Macleayi*.

*S. nigro-chalybeatum, nitidum*; prothorace transverso, antice rotundato, basi angustiore; scutello nigro-cupreo; elytris subelongatis, seriato-punctatis, lateribus parallelis.

*Hab.* New South Wales.

Dark chalybeate blue, shining; head finely punctured; eyes nearly contiguous above; epistome and lip bordered with testaceous; antennæ about half the length of the elytra, the third joint much longer than the first and second together, the fourth and fifth gradually

shorter; prothorax finely punctured, much broader than long, considerably rounded at the anterior angles, the sides gradually but slightly narrowing posteriorly, a shallow fovea on each side in front; scutellum dark copper-brown; elytra seriate-punctate, the punctures coarse, rather elongate, the sides parallel for about two-thirds of their length, then slightly rounded and gradually tapering to the apex; body beneath and legs dark brown or black, with a tinge of reddish, especially on the femora; posterior tarsi with the basal joint longer than the rest together. Length 6 lines.

There are very few species of this genus described in comparison to those in collections; and none, I believe, from Australia. I do not know anything to which the one here described can be assimilated, except one from Mysol, which, however, has only a certain similarity of outline.

#### CAMPOLENE [Tenebrionidæ].

*Caput* subexsertum, antice dilatatum, postice paullo constrictum. *Oculi* parvi, emarginati. *Antennæ* breves, claviformes. *Tibiæ* curvatæ, muticæ. *Prosternum* antice constrictum, postice subhorizontale, incurvato-productum. *Mesosternum* declinatum, antice triangulari excavatum.

These characters are intended to be contrasted with those of *Chariotheca* and *Titæna*, between which, I believe, this genus should be placed. The unarmed tibiæ, and the partially horizontal and then incurved posterior portion of the prosternum, terminating in a short triangular process very imperfectly received in the corresponding notch of the mesosternum, will distinguish it from the former: while in *Titæna* the anterior portion of the prosternum is so contracted that it forms a mere line in front of the two cotyloid cavities, so that the head in repose rests on the coxæ, this part has the normal form in *Campolene*. There are also other differential characters which it is not necessary to mention now. In habit *Campolene* resembles *Helops*.

#### *Campolene nitida*. (Pl. II. fig. 4.)

*C. elongato-ovata*, nigra, nitida; prothorace subtiliter, elytris seriatim punctatis; pedibus rufo-ferrugineis.

*Hab.* New South Wales.

Elongate-ovate, black, shining; head finely punctured, slightly contracted behind the eyes, expanded and a little concave anteriorly, the lip nearly hidden beneath the clypeus; antennæ shorter than the prothorax, the third and fourth joints longest, the rest becoming gradually shorter, broader, and more compressed, the last largest and nearly circular; eyes small, lateral, emarginate in front; terminal joint of

the maxillary palpi securiform, of the labial narrowly triangular; prothorax finely punctured, convex, slightly transverse, rounded anteriorly and laterally, and narrowly margined; scutellum small, triangular; elytra coarsely seriate-punctate, scarcely broader at the base than the prothorax, the sides gradually rounded to the apex; body beneath with the sterna dull reddish ferruginous, the abdomen glossy black; prosternum subhorizontal posteriorly, incurved, ending in a short thick process which is only partially received in the shallow corresponding notch of the mesosternum; intercoxal process rather broadly triangular; legs reddish ferruginous, rather slender; tibiæ strongly curved, and unarmed; tarsi narrow, hairy beneath, the basal joint slightly elongate, the last shorter than the preceding united. Length 4 lines.

APELLATUS [Cistelidæ].

*Caput* antice elongatum; *oculis* magnis, reniformibus. *Antennæ* breves, articulo primo vix incrassato, tertio ad septimum subæqualibus, haud nodosis. *Tibiæ* breves, curvatæ. *Prosternum* compressum, elevatum.

The genera of Cistelidæ do not appear to be distinguished from each other by any very trenchant characters. This genus is perhaps scarcely an exception, although in colour it differs essentially from *Æthyssius*\* and *Tanychilus*, genera to which, on account of their long muzzle, this is the most nearly allied: from these, and especially from the latter, it is separated by its shorter antennæ, with the basal joint scarcely thickened, the nearly equal length of the third to the seventh inclusive, their subcylindrical form (not nodose at the end), the shorter and curved tibiæ, the larger and more reniform eyes, and the narrow prosternum. I only know the males.

*Apellatus lateralis*. (Pl. II. fig. 1.)

*A.* flavo-testaceus, glaber, subnitidus; oculis vittaque elytrorum nigris.

*Hab.* New South Wales.

Fulvo-testaceous, smooth, subnitid, a stripe from the shoulder gradually widening behind, and at the apex nearly approaching the suture, and eyes black; head narrow, prolonged beyond the eyes, and rounded immediately behind them; antennæ about half as long as the

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\* *Æthyssius*, proposed for *Atractus*, Lacord. (Macleay, Dejean), which name has been in common use since 1832 for a genus of Hemiptera. The name of another Heteromorous genus (*Trigonotarsus*, Hope) having been preoccupied by Guérin for a genus of Curculionidæ, I have now to propose "*Sobas*," which I have used in a MS. list of the Australian Heteromera that I have in hand. I have also in the same list adopted as a genus the division distinguished by two spurs to the anterior tibiæ, which M. Lacordaire has made in *Nacerrdes*, and have named it "*Sessinia*."

body in the male (probably shorter in the female), the basal joint scarcely thickened, the second short, the third to the seventh of nearly equal length, subcylindrical, not nodose at the ends, and the remainder a little shorter and somewhat compressed (except the last, which is pointed); palpi brownish, the terminal joint of the maxillary securiform, of the labial shortly triangular; eyes large, reniform; prothorax rather longer than broad, rounded at the sides, truncate and considerably contracted in front, finely punctured, two foveæ at the base and an intermediate depression, posterior angle acute; scutellum triangular; elytra striate-punctate, much wider than the prothorax, ovate-elongate; body beneath fulvous, pubescent; prosternum narrow, elevated; mesosternum V-shaped; legs short; tibiæ slightly curved, terminating in two short spines; the two penultimate of the anterior and intermediate and the penultimate only of the posterior tarsi lamellate. Length 4 lines.

DIACALLA [Lagriidæ].

*Caput* trigonatum, ad angulum posticum productum. *Oculi* parvi, rotundati. *Labium* quadratum, membranaceum. *Palpi labiales* articulo ultimo subcylindrico. *Prothorax* late ovatus, antice constrictus. *Tibiæ* bicalcaratæ.

These characters (and there are also others) are in complete opposition to *Lagria*, with which genus only—if, perhaps, we except *Euomma*—in the four which have hitherto composed this family, is it to be assimilated. In other respects it agrees perfectly with the characters of the Lagriidæ as laid down by M. Lacordaire, except that the eyes are entire, and the labium is so thin and transparent as to be rather membranous than corneous\*. The habit of the species described below is more that of a *Titena* than a *Lagria*.

*Diacalla comata*. (Pl. II. fig. 6.)

*D. rufo-fusca*, subnitida, hirsuta, fortiter et confertim punctata; abdomine infra subrufescente.

*Hab.* Queensland.

Dark reddish brown, subnitid, closely and very coarsely punctured, with short erect greyish and black hairs, mostly arising from the punctures, covering the whole upper surface; head inclined, trigonal, enlarged behind the eyes, then suddenly contracted into a thick neck; eyes small, round; antennæ short, the two basal joints slightly thickened, the remainder to the tenth gradually diminishing in length but increasing in thickness, the eleventh more slender and as long as the two preceding together; internal maxillary lobe narrow, longer than

\* Fabricius, however, says "labium membranaceum." (*Ent. Syst.* i. pars ii. p. 78.)

the outer, both densely ciliated, their palpi long, with the last joint securiform; labium thin, quadrate, fringed anteriorly, its palpi subfiliform, rather elongate, arising from near the centre of the labium; mentum subtransverse, rounded at the sides, peduncle of the jugular plate as broad as the labium; prothorax broadly ovate, constricted in front, so as to form a sort of collar; scutellum triangular; elytra much broader than the prothorax, gradually tapering behind, rounded at the apex; legs rather short, tibiæ terminated by two spines, basal joint of the anterior tarsi short, the intermediate and posterior gradually longer; body beneath slightly hairy, the abdomen with a reddish tinge. Length 5 lines.

The above description is from a female. A male which I believe belongs to this species is smaller, more hairy, the terminal joint of the antennæ much longer, and the abdomen without the reddish tinge.

#### GOËTYMES [Cantharidæ].

*Caput* magnum, fronte convexa; *oculis* reniformibus. *Antennæ* breves, frontales, articulo primo subtrigono, incurvato, in sulco infra oculos recepto, secundo tertioque brevibus, reliquis flabellatis. *Tibiæ* unicalcaratæ. *Tarsi* breves, unguiculis simplicibus.

The nearest ally of this genus is *Sitarida*, White, from which, *inter alia*, it differs, as it does from every other of the family, in its flabellate antennæ, which resemble *Evaniocera* in the nearly allied group of Rhipophoridæ. The difference between the antennæ of the two genera, however, requires to be more clearly contrasted. In both they are 11-jointed; but in *Sitarida* the first four are simple, while each of the remaining seven throws out laterally and at the base a short square lamina—this portion of the antenna being, in fact, pectinate. In *Goëtymes*, the first three joints only are simple, the remainder being drawn out into long laminae, closely applied to each other at the base, and forming a compact mass when at rest. For the protection of this delicate part in repose, there is a groove beneath the eye, which receives the basal joint, and thus allows the whole antenna to be kept well under the head and breast; and this purpose is facilitated by the antenna not arising in the space formed by the emargination of the eye (which, I believe, is almost invariably the case whenever that organ is reniform or emarginate, and which is apparently so constructed for the express purpose), but below this space, and in front of the inferior portion of the eye. It may be added that the emargination above mentioned is occupied by a short, obtuse process, a simple development of the front.

*Goëtymes flavicornis.* (Pl. II. fig. 5.)

*G. pallide fulvescens*; mandibulis, prothorace, sternis femoribusque nigris; antennis flavescens.

*Hab.* Australia (Port Stephens).

Pale brownish fulvous, more or less clothed with short erect hairs; mandibles, prothorax, breast, and thighs black or brownish black, abdomen and antennæ pale yellow; head convex and rounded in front, covered with minute vermicular folds; epistome and lip trigonal: mandibles thick, bifid at the end, coarsely punctured at the base; palpi robust, the labial much smaller than the maxillary, the last joint in both ovate; prothorax subtrigonal, the sides slightly rounded; scutellum triangular, the apex prolonged into a short quadrate process; elytra very short, spatulate; legs robust; all the coxæ contiguous; femora and tibiæ ciliated beneath, the latter with a single spur; tarsi short, the claws simple; abdomen corneous, not contracting when dry. Length 10 lines.

The specimen described is in the British Museum. The hind tarsi are unfortunately wanting; in the figure they are assumed to resemble those of *Sitarida Hopei*. Port Stephen or Stephens is about two degrees N. of Sydney.

## CYPHAGOGUS [Brenthidæ].

Parry, Trans. Ent. Soc. v. p. 182.

*Cyphagogus advena.*

*C. rufo-testaceus, nitidus*; capite lato, breviusculo, apice emarginato; elytris striatis, striis modice punctatis.

*Hab.* Natal.

Reddish testaceous, shining; head as broad as the prothorax, but considerably shorter, finely and sparsely punctured, widely emarginate at the apex, which is bilobed on each side; eyes round, black; antennæ scarcely longer than the head; prothorax narrow, compressed anteriorly, with a few minute, scattered punctures; no visible scutellum; elytra as broad as the prothorax, deeply striated, the striæ with shallow, rather distant punctures; body beneath more coarsely punctured; legs with the posterior tibiæ not longer than the basal joint of the tarsi of the same pair. Length 3 lines.

This adds one more to the list of remarkable genera common to the Indian Islands and to Natal, yet still sufficiently distinct to form another category in this curious and very strongly marked genus. That is to say, that in its shorter head and thicker rostrum it recedes from *Cyphagogus* and approaches *Zemioses*, which, however, has legs of the more normal character.

## MACROTOMA [Prionidæ].

Serville, Ann. de Soc. Ent. de Fr. i. p. 137.

*Macrotoma servilis*.

*M. fusco-castanea*, subnitida; prothorace transverso, lateribus submuticis, antice tridentatis, postice unispinosis; scutello postice rotundato; elytris connexo-punctatis, haud vermiculatis; abdomine glabrato, polito.

*Hab.* Australia (Melbourne).

Dark chestnut-brown, subnitid; head coarsely punctured; antennæ longer than half the length of the body, all the joints more or less punctured, the third nearly as long as the two next together; prothorax shortly transverse, irregularly and coarsely punctured, the middle portion of its sides straight, but gradually diverging to the base, nearly meeting, anteriorly with three teeth, posteriorly with a spine, at the base of which are two or three short teeth; scutellum rounded posteriorly; elytra much broader than the base of the prothorax, the sides slightly rounded, closely punctured, the punctures becoming coarser and more or less connected, although never vermiculate, as they approach the suture and base, this part also being darker or somewhat pitchy; abdomen and legs pale chestnut, highly polished; metasternum thinly pilose, prosternum coarsely punctured. Length 18 lines.

The only *described* Australian Prionid that approaches this is *Hermerius impar* of Newman, which, *inter alia*, differs in its hairy prothorax and the thick mass of woolly pubescence which clothes the abdomen. I have not adopted the genus, however, from the impossibility of seeing how it is to be separated from some forms of *Macrotoma*. There are several undescribed species from Australia, differing from each other in a not very tangible manner, but mostly having the sides of the prothorax more denticulate. I fear, however, that the amount of denticulation is very often, in this family, a character varying according to the individual. In the specimen just described, the two posterior teeth of the anterior angle of the prothorax are distinctly bifid on the right side, but are entire on the left. So in Mr. Newman's genus *Cnemoplites*\*, the teeth on the protibiæ, in a specimen of an undescribed species in the British Museum, are five on one side, and three on the other; in an allied species the intermediate tibiæ are also toothed, and in my *Mallodon figuratum* all the tibiæ. The Prionidæ, as they are constituted at present, appear to be a very unsatisfactory family, containing several anomalous genera, and others which are extremely difficult to limit.

\* Mr. Newman describes *Cnemoplites* thus: "*Protibiis excurvatis, extus spinosis*" (Entom. p. 351); and, in addition to *C. edulis* (unknown to me), refers to it *Prionus spinicollis*, Macleay, which has *all* the tibiæ spined, and which I cannot separate from *Macrotoma*. It is, in fact, very near my *Macrotoma gemella*.



One of these, *Neostenus* (Trans. Ent. Soc. ser. 2, iv. p. 91), on account of the position of the anterior coxæ, I am disposed to place with the Cerambycidae, perhaps not far from *Bimia*. This last, also, is a very isolated genus.

OBRIDA [Cerambycidae].

White, Stokes's Voyage, App. i. p. 510.

*Obrida comata*.

*O. nigro-chalybeata*, sparse griseo-pubescent, hirsuta; elytris singulis macula magna mediana flava.

*Hab.* Queensland.

Very dark steel-blue, lightly covered with a pale greyish pubescence, with scattered, erect, stiffish hairs interspersed; head and prothorax roughly and closely punctured, the anterior and posterior margins of the latter of nearly equal breadth; scutellum triangular, covered with long silky hairs; elytra short, broader than the prothorax, the sides parallel, each furnished with two not very prominent costæ, and in the middle a large transverse yellow spot not attaining the margin or the suture; body beneath shining steel-blue, sparingly punctured with a few scattered hairs; legs more or less hairy, the femora shining steel-blue, base of the posterior testaceous; tarsi rufous brown; antennæ entirely black, about two-thirds the length of the body. Length 4 lines.

Perfectly homogeneous with *Obrida fascialis*, but broader and more robust, with the antennæ and legs entirely black (except the base of the posterior femora), and the broad orange band on the elytra of the former replaced by two pale-yellow patches; it is also more pubescent, furnished with long scattered hairs.

PYRESTES [Cerambycidae].

Pascoe, Trans. Ent. Soc. ser. 2, iv. p. 96.

*Pyrestes cardinalis*.

*P. ruber*, nitidus; scutello, pedibus corporeque infra nigris.

*Hab.* Hong Kong.

Dark red, brighter on the elytra, shining, with a pubescence consisting of a few short black hairs, but more numerous on the prothorax; head dark brownish-red, thickly punctured; antennæ dark brown, the basal joints coral-red, except at their extremities; eyes black; prothorax about half as long again as broad, rugosely punctured, the punctures large and irregular; scutellum narrowly triangular, black; elytra dark blood-red, coarsely and deeply punctured at the base, but gradually more scattered and shallower towards the apex; legs black, covered with short stiff fulvous hairs; body beneath black, shining, moderately punctured, slightly hairy. Length 7 lines.

In 1857 I briefly characterized this genus, at the same time describing three species, all Asiatic. I do not see that I can add anything really essential to those characters now. The genus is a very natural one, and is allied to *Erythrus*, but with an ovate-elongate or almost subcylindrical prothorax; elytra slightly contracted in the middle, much more convex, and with a broad emargination externally near the shoulder. The palpi also are longer and more unequal. The antennæ vary in length, but are longest in the males, although scarcely so long as the body. The pro- and mesosterna are simple. Professor Westwood has given an excellent figure of *Pyrestes eximius* in the work above quoted (pl. 22. fig. 3).

ERYTHRUS [Cerambycidae].

White, Cat. Col. Ins. Brit. Mus. Longicornia, p. 142.

*Erythrus congruus*.

*E. niger*; prothorace elytrisque coccineis, illo nigro sex-maculato et medio breviter carinato.

*Hab.* Hong Kong.

Slightly depressed, irregularly and closely punctured, black; prothorax and elytra bright scarlet, the former nearly equal in length and breadth, with six black spots, four on the disk and one on each side, the middle with a short elevated line; scutellum transverse; elytra moderately long, an elevated carina running from each shoulder to near the apex, which is rounded with its edges minutely serrated; body beneath entirely black, very closely and irregularly punctured; legs black, tarsi of the intermediate pair longer than their tibiæ. Length 9 lines.

From *Saperda? bicolor*, Westw., this insect differs in being *entirely* black beneath, in its six-spotted prothorax with a short elevated line in its middle, in the more decidedly elevated and longitudinal carina which occurs on each elytron, and in the general vitreous sort of transparency which in certain lights and under a strong lens glistens over its surface, especially on the elevated lines of the prothorax and elytra. It will serve to show the uncertainty of characters generally thought to be of generic value among the Longicorn families that, notwithstanding the close affinity of these two *Erythri*, amounting at the first glance almost to identity, the one, *E. bicolor*, has the epistome very distinct, while in the other it is apparently wanting. *Erythrus Fortunei*, White (the only other *Erythrus* having the head black), is a narrower and smaller species, with a longer prothorax and darker colour.

*Erythrus? Bowringii.*

*E.*? *angustatus*, rubro-sericeus; prothorace ovato, medio carinato; elytris elongatis, apice truncatis; corpore infra nigro, griseo-pubescente.

*Hab.* Hong Kong.

Narrow and elongate, brick-red, covered with a fine silky pubescence; head roughly punctured, the muzzle rather short; antennæ black, longer than the body in the male, about three-quarters of its length in the female, the serration beginning with the fourth joint; prothorax ovate, a long linear carina in the middle, two black spots anteriorly on the disk, marking the nearly obsolete tubercles; scutellum triangular; elytra elongate, scarcely wider than the prothorax, the sides incurved and expanding very slightly posteriorly, the apex truncate, a broadly elevated line extending from the shoulder to near the apex; body beneath black, closely covered with a short greyish-white pubescence; legs black, slightly pubescent, femora of the intermediate pair produced beneath, and fringed at the deepest part of the border with short stiff hairs. Length (♂) 9, (♀) 11 lines.

This species rather breaks in upon the homogeneity of *Erythrus*, but I scarcely see sufficient characters to warrant its separation as a distinct genus. The narrow form, the ovate prothorax, and the serrated portion of the antennæ beginning at the fourth joint instead of the fifth, seem to be the most distinctive points. The muzzle is also somewhat shorter and the palpi longer, but I think it would be difficult to formulate a satisfactory diagnosis on these. The peculiarity of the intermediate femora is less marked in the female. I am indebted for this and the two preceding species, and indeed for many others, to John Bowring, Esq.

## POLYZONUS [Cerambycidae].

Laporte de Castelnau, Hist. Nat. des Ins. Coléop. ii. p. 438.

*Polyzonus pubicollis.*

*P.* obscure niger; prothorace subcylindrico, aureo-pubescente; elytris luteis, fasciis tribus, postica subapicali suturam non attingente, nigris.

*Hab.* Natal.

Dull black; head coarsely punctured, with a few scattered yellowish hairs; epistome very short, lip narrow, bordered with stiff yellowish hairs; prothorax short, subcylindrical, slightly narrowed behind, closely and coarsely punctured, and covered with a golden-yellow pile; scutellum acutely triangular; elytra very finely and closely punctured, sparsely pubescent, luteous yellow, a black band near the base, a second at the middle, and a third towards the apex, but which does not attain to the suture; body beneath black, more or less covered with a silvery-grey pile, the last abdominal segment extending beyond the elytra; legs black, more or less pubescent; femora scarcely clavate, the posterior

not at all; tibiæ short, the distal extremity of the posterior scarcely reaching to the end of the abdomen; antennæ black, the basal joints with a slight pubescence. Length 9 lines.

Of the two species of *Promeces* mentioned by Serville, one, the *Saperda clavicornis* of Fabricius, is a *Polyzonus*. The error is the more remarkable, as he has perfectly well distinguished *Promeces* by the setaceous, twelve-jointed antennæ of the males. *Polyzonus clavicornis*, a common Cape insect, on the contrary, has the antennæ claviform and eleven-jointed in both sexes. The Comte de Castelnau has failed to notice any peculiarity in the antennæ either of *Promeces* or *Polyzonus*, and is apparently ignorant of the females of the former, since he ascribes filiform antennæ to both sexes, the fact being that they are *setaceous*, not *filiform*, in the males and *clavicorn* in the females. With regard to *Polyzonus*, the species described above is remarkable for its subcylindrical prothorax rather closely covered with a short decumbent pile, and is distinguished from all others of the genus known to me by the yellow apex of the elytra.

*Polyzonus scalaris* (Dej.).

*P. angustus*, chalybeatus; prothorace breviter subovato, rugoso-punctato; elytris luteis, fasciis tribus latis chalybeatis.

*Hab.* Cape of Good Hope.

Narrow, dark steel-blue; head coarsely punctured, epistome very short, lip large, broader anteriorly, scarcely emarginate, eyes black; prothorax shortly subovate, very roughly punctured, scarcely pubescent; scutellum narrowly triangular; elytra strongly and closely punctured, luteous yellow, with three broad dark chalybeate bands, the first towards the base, the second in the middle, the third apical; body beneath steel-blue, with a silvery-grey pubescence; legs steel-blue, femora of the anterior and intermediate pairs only moderately clavate; antennæ very dark steel-blue. Length 7 lines.

In the disposition of the bands on the elytra this species comes nearest *Polyzonus Mellyi*, White, but is smaller, narrower, with a more ovate prothorax, which is scarcely or not at all pubescent, and with very much broader bands on the elytra. I believe it to have been hitherto unpublished.

PROMECES [Cerambycidae].

Serville, Ann. de Soc. Ent. de Fr. iii. p. 27.

*Promeces viridis* (Dej.).

*P. viridi-ceruleus*, corrugatus; prothorace brevi, lateribus irregulariter rotundatis; femoribus posticis subclavatis.

*Hab.* Natal.

Dark greenish blue, the whole upper surface finely corrugated; head coarsely punctured in front, epistome dark brown, shining, lip rounded, covered with greyish hairs, eyes black; prothorax scarcely longer than broad, irregularly rounded at the sides; scutellum triangular, very concave; elytra nearly parallel, without raised lines; body beneath shining chalybeate blue, sparsely pubescent; femora blue, the posterior very slightly clavate; tibiæ and tarsi blue, covered with short stiff hairs, claws reddish testaceous; antennæ blue, the basal joint coarsely punctured, the last four joints in the female very short and thick. Length 5 lines.

This long-known species has not, so far as I know, been hitherto described. It may be at once distinguished from its congeners by its short and corrugated prothorax; but, like the others, its colour is more decidedly blue than green.

#### Apodasya [Lamiidæ].

*Caput* parvum, verticale; *oculis* emarginatis. *Antennæ* pilosæ, articulo basali subcylindrico, tertio longissimo, cæteris brevissimis. *Prothorax* gibbosus, subquadratus, lateraliter spinosus. *Elytra* parallela. *Tarsi* breves. *Pro-* et *mesosternum* simplicia, acetabula antica angulata. *Corpus* subelongatum.

*Chatosoma pilosum* of Dejean's Catalogue is the type of this genus, but as the generic name has been used for one of the Cucujidæ, it is necessary to substitute another. In the above work it was placed between *Desmiphora* and *Cloniocerus*, but it appears to me to be more nearly related to *Hebestola*. It is not mentioned by M. James Thomson in his 'Essai,' &c.; indeed it seems to be a very scarce insect, only to be seen in a few old collections. My specimen is from the collection of Mr. Waterhouse.

#### *Apodasya pilosa.*

*A. ferruginea*, grisescente-pubescent, pilis longis albis nigrisque tecta; prothorace disco nigro; antennis pedibusque infuscatis.

*Hab.* South Africa.

Ferruginous, covered with a very fine greyish pubescence, and with long erect white hairs mingled with black; head rather small; epistome and lip very distinct, the latter rounded anteriorly; palpi pointed; eyes deeply emarginate; antennæ very hairy, arising from two diverging tubercles, shorter than the body, the basal joint subcylindrical, the third as long as the rest together, a dense fascicle of black hairs enveloping the fourth joint and apex of the third; prothorax short, irregularly gibbous, a strong tooth on each side posteriorly, the disk with a large black spot; scutellum very small, black; elytra parallel, elongate, broader than the prothorax, very coarsely punctured; body beneath yellowish ferruginous, the sides of the metathorax and base of the abdomen brown; legs brownish. Length 5 lines.

## APROÏDA [Hispidæ].

*Caput* pone oculos subelongatum; fronte brevi, verticali; clypeo bilobato, labrum occultante. *Oculi* ovati. *Palpi maxillares* articulis ultimis duobus globosis. *Palpi labiales* articulis ultimis oblongo-ovatis. *Mentum* quadratum. *Antennæ* filiformes, super tuberculis inter oculos insertæ, articulis duobus basalibus brevibus, primo incrassato, cæteris brevioribus, ultimo paullo longiore apice appendiculato. *Prothorax* quadrilateralis, postice latior. *Elytra* deplanata, subtrigona, thorace latiora, apice caudata. *Pedes* breves; *femoribus anticis* incrassatis, dentatis; *tibiis* ejusdem curvatis, introrsum bispinosis. *Corpus* subplanatum.

This is probably the most remarkable genus of the Hispidæ, wholly distinct in habit from any other known species, although most nearly related to *Eurispæ*. The prolongation of the head behind the eyes, the size and figure of the anterior femora, the two formidable teeth on the protibiæ (as is also the case in some Cephalodontæ), and trigonate outline of the elytra terminating in two thick spines, combine to produce a form that, taken in conjunction with the congeners of its own family, renders it one of the most striking of the Australian Coleoptera. The parts of the mouth can only be described as they are seen *in situ*, and these are the more difficult to distinguish as they are placed in a deep cavity formed by the mandibles in front, and by the jugular plate, bent down at a right angle, behind; it may be also noticed that the angle itself is bordered by an elevated, narrow ridge. I am indebted to Mr. Baly, who is so well known for his Monograph of this family and for his knowledge of the Phytophagous groups in general, for his assistance in this examination; he is satisfied of the existence of a small square mentum which is attached to the anterior edge of the reflected portion of the jugular plate, and that the last two joints of the maxillary palpi are together of a globose form, and those of the labial oblong-ovate.

*Aproïda Balyi*. (Pl. II. fig. 8.)

*A. flavescens*, vitta fusco-purpurea ab oculis ad apicem elytrorum ornata; antennis fusco-purpureis, articulis duobus ultimis albis.

*Hab.* Queensland.

Fulvous, on the elytra inclining to lemon-yellow, a dark-purple line extending from the eye to the apex of the latter; head coarsely punctured, elongate behind, the front vertical, with a tubercle before each eye, bearing the antennæ; eyes ovate, prominent; antennæ about half the length of the body, dark chestnut-brown, the last two joints pale straw-yellow, the basal joint short, incrassate, the second about the same length as the first, the remainder longer, cylindrical, the last terminated by a small hooked appendage; prothorax quadrilateral,

broader behind, bulging at the sides, the disk concave near the base and very coarsely punctured; scutellum subtriangular; elytra trigonate, depressed, covered with large rough punctures, broadest at the shoulders, where they considerably exceed the prothorax, gradually contracting towards the apex, and terminating on each side in a stout diverging spine, which is considerably strengthened by a short raised line or rib which connects it with the rest of the elytron; body beneath saffron-yellow, nearly impunctate; mouth, mandibles, and palpi dark brown; the intermediate and posterior legs short, the anterior much longer; femora clavate, with a large obtuse tooth beneath, except the posterior; anterior tibiae slender, curved, dilated at the apex, with two acute teeth on the inner side. Length 6 lines.

## EXPLANATION OF THE PLATES.

## PLATE II.

- Fig. 1. *Apellatus lateralis*.  
 „ 2. *Diatelium Wallacei*.  
 „ 3. *Clidicus fornicarius*.  
 „ 4. *Campolene nitida*.  
 „ 5. *Goëtymes flavicornis*.  
 „ 6. *Diacalla comata*.  
 „ 7. *Achthosus Westwoodii*.  
 „ 8. *Aproöda Balyi*.  
 „ 9. *Petalophora brevimana*.

## PLATE III.

- Fig. 1. *Crine cephalotes*.

- Fig. 2. *Metopiestes hirtifrons*.  
 „ 3. *Temesia Batesii* \*.  
 „ 4. *Illestus terrenus*.  
 „ 5. *Narcisa decida*.  
 „ 6. *Phormesa lunaris*.  
 „ 7. *Dastareus confinis*  
 (trophi).  
 „ 8. *Synæmis pandani*.  
 „ 9. *Ipsaphes macrosus*.  
 „ 10. *Nematidium mustelu*.  
 „ 11. *Bothrideres?* *rhysooides*.  
 „ 12. *Bothrideres?* *nocturnus*.  
 „ 13. *Machlotus porcatus*.

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\* The description of this insect will be given in a future Part.





